Missouri Department of Natural Resources

Joint Meeting
Clean Water Commission and Conservation Commission

Meeting Minutes

January 29, 2003

Joint Meeting
Clean Water Commission and Conservation Commission
December 19, 2002

Minutes

Attending Conservation Commission:
Howard Wood, Stephen Bradford, Cynthia Metcalfe, Anita Gorman, Carolyn Auckley, John Hoskins
Attending Clean Water Commission:
Tom Herrmann, Davis Minton, Janice Greene, Kristin Perry, Cosette Kelly, Jim Hull, Diane Waidelich, Deborah Neff

John Hoskins, Director of the Department of Conservation, welcomed everyone to the meeting. He stated the Department of Conservation and Department of Natural Resources have routinely worked in concert on issues of common concern for many years. He and Steve Mahfood, Director of the Department of Natural Resources, have been meeting since he became Director of the Department of Conservation to establish good communication at the director's level. Staff of the departments and commissions introduced themselves.

Stream Team Program

Rich Wehnes, Missouri Department of Conservation (MDC), reported that the Missouri Stream Team program is probably one of the largest volunteer river conservation organizations in the nation and probably the most successful.

Adopt A Stream Program
Cosponsored by MDC, DNR and the Conservation Federation of Missouri
Gives citizens an opportunity to learn more about streams
Undertakes projects to improve streams, water quality and habitats
Instills an increased interest in conserving neighborhoods or adopted streams

Volunteer Water Quality Monitoring Program
Began in 1992 due to growing interest in this area
Stream teams have done at least $1 million worth of activities every year for the last 3 years
Fostering a conservation ethic among citizens
Complete projects that improve streams
Promote good public relations
Provide feedback to agencies

Donna Menown, Missouri Department of Natural Resources (MDNR), stated Missouri has a heavy responsibility with its 56,000 miles of streams. Water quality monitoring is essential for an understanding of the conditions of the resources. Data on these streams gives a basis for effective policies which in turn promote wise use and management. Citizens can help cover waters that state agency personnel have not yet attended to.

Goals of the volunteer water quality monitoring program
Inform and educate citizens about the conditions of the streams
Develop a monitoring network by enabling citizens
Halt the degradation of Missouri streams

A stream is a reflection of its watershed and good water quality is a function of good physical, chemical and biological components that can support all of the uses that are intended for that stream. In 2001, 398 citizens attended the volunteer monitoring classes. The number has risen to 432 in 2002.

Since the program began, 2,700 individuals have attended at least one of the workshops and 11,000 sets of water quality data have been received from 1400 sites around the state. In general, the volunteer data may be used to:
Inform and educate people about the condition of the streams;
Establish baseline data which there is not a lot of on some of the streams in the state;
Identify long-term trends on the conditions of streams; and
Locate emerging problems.

Volunteer monitors submitting data brought the severity of existing problems on Peruque Creek in St. Charles County to the attention of MDNR. Further investigation resulted in MDNR proposing Peruque Creek be listed on the 2002 303(d) List. Level 2 and Level 3 data submitters have passed very specific quality assurance and quality control criteria in their training. Therefore their data has a much higher credibility level and can be used to support agency collected data for evaluation of best management land use practices, planning for zoning regulations, planning and permitting within MDNR, and for MDNR's biannual 305(b) Report to EPA. Collection of data is one of the main goals of the program but the educational component is as important if not more important. Educators attend classes and take the information to their students. The value of this cannot be overstated. The program is a success largely because the staff from each of the sponsoring agencies have learned to trust each other. The common goal of these staff is to evoke grass roots interest.

Commissioner Greene asked what percent are certified at Level 2 and 3.

Ms. Menown calculated level 2 training at approximately 10% and level 3 training at less than 2%.

Commissioner Perry asked if there is coordination of the various stream teams within a watershed area.

Ms. Menown replied it depends on the watershed and the individuals involved but this is promoted whenever possible.

Commissioner Kelly asked what happens to the stream team reports when they are received.

Ms. Menown replied staff looks very hard at every piece of data that comes in. The data is QA/QC checked and reviewed. The data is entered into the stream team database maintained by MDC and summaries are given out periodically depending on the requests for information that are received.

Commissioner Greene noted the education aspect is so important. It's a great opportunity for teachers and students to get out and participate in these types of activities when they may not otherwise have that opportunity.

Chairman Herrmann asked how much guidance is given to stream teams regarding collecting water quality data.

Ms. Menown replied general guidance is given on how many times a year sampling should be done.

Chairman Herrmann noted his concern is that the results may not be reliable depending on when and where the data is obtained.

Ms. Menown noted the stream teams are educated about watersheds and flow and they are made aware when they need to be sampling.

Sharon Clifford noted the agency gives very little direction to the citizenry since this is a grassroots driven program. In the TMDL lawsuit settlement, volunteer monitoring was an issue. It was decided at that time that no official decision would be based on volunteer data alone. The teams sample when they want and a broad spectrum of data is received.

Chairman Herrmann asked if the validity of the data is assessed.

Ms. Clifford replied it depends on what level of training they have been through and how the data will be used.

Chairman Wood introduced Mark Van Patten who was the first Stream Team Coordinator and now works for MDC.

Storm Water Runoff

Ron Dent showed several examples of runoff in streams.
Runoff negatively impacts fish and bottom dwelling insects as well as the food chain and ultimately fish growth and survival
As aquatic insect abundance is reduced, so is fish spawning

Runoff degrades the overall quality of the habitat
Muddy water reduces light penetration into the water and ultimately the productivity
Water storage is reduced
Flow is altered and serves as a carrier of a number of pollutants that are attached to the sediment

According to a recent study by EPA, this is the number one greatest source of pollution found nationwide. The high rate of failure of the currently used erosion and sediment controls is caused by misapplication, improper sizing, lack of maintenance, and lack of both agencies' ability to keep up with the exponential growth of development statewide.

A North Carolina enforcement study looked at several watersheds. Some BMPs were instituted in one. Sediment loading rates in that watershed were as much as 100-200 tons per acre. This is compared to a watershed where there were no erosion control practices with 1,100 tons per acre per year of sediment being removed from the hillside ultimately ending up burying the stream resources.

The local municipalities lack effective controls to enforce storm water regulations and erosion control practices. The current Notice of Violation process is problematic. It's not perceived as a valid threat so there is very poor compliance by many developers. The process also takes too long to be effective. The damage can be extensive before enforcement action is taken. The MDNR regional offices have a difficult time keeping up with the number of developments they have to deal with. Developers complain that they are following BMPs but MoDOT projects do not follow these practices. This is a cooperative effort of MDC and MDNR and it needs to be a priority effort. Efforts need to be focused on the streams where the most good can be done with the limited amount of resources available.

Runoff to a stream system increases the storm water runoff within the watershed which:
Disrupts the natural water balance
Increases flood peaks
Results in more frequent flooding and bank full flows
Stream channel widening and deepening

Awareness of this issue can be raised
Research can collect useful data as far as numeric criteria on suspended sediment
Identify effective BMPs to help control erosion;
Continue to monitor stream aquatic biota;
Support MDNR efforts and cooperate in a team effort to influence MoDOT's current attitudes toward BMPs and the control of erosion;
Promote educational opportunities such as MDC's Missouri Outdoors;
Use stream teams as an advocacy and data collection tool;

Interact with city and county governments to promote effective BMPs as well as implement ordinances that are storm water friendly;
Work with homebuilders associations and developers in a positive manner;
Institute a recognition program for green developers;
Education that it is much less expensive to prevent pollution from happening rather than trying to clean it up

Phil Schroeder stated EPA has reported that forty percent of surveyed US waters do not meet water quality standards. EPA also recognizes that storm water is a leading cause for this. Urban runoff and storm water discharges are considered by EPA to be the third most prevalent source of impairment for lakes and waters. Two others types of pollution that Missouri sees as a cause of major impairment is mistreated or inadequately treated domestic wastewater systems and industrial storm water. There are 89 streams and 21 lakes listed as being impaired by storm water. Of the 89 streams, over half have sediment problems. The primary reason is from nonpoint sources. About 39% of the point sources are shared between industrial storm water sources and the remainder is from urban runoff. A lot of the land disturbance problems that are well documented do not show up with respect to Missouri's impaired waterways. The correction is done fairly quickly but the damage is already done. Once the site is fully stabilized, the issue is no longer in front of staff. Most of the impaired waterways listed are from long-term problems. In addition to sediment, other pollutants that affect storm water are from industrial and other sources.

Storm water became a regulated activity in 1987 when Congress reauthorized the Clean Water Act. Storm water was made a point source in certain circumstances. It was recognized in the Clean Water Act that the problem had to be addressed in phases. Phase I focused on municipalities with a population of 100,000 or more, certain categories of industrial activities such as mining and construction activities. Any activity that disturbed five or more acres was required to obtain a permit. Missouri developed its storm water program in 1992. There are about 5,000 storm water permits currently in effect. About 1,000 storm water permits are issued annually. Thousands of inspections have been conducted as well as hundreds of enforcement actions. Nearly $2 million in penalties has been collected since the program began. Technical assistance is provided to the various entities that are causing storm water discharges. During the last two years 60 workshops focusing primarily on BMPs for construction activities have been held. Financial assistance totaling about $200 million has been awarded. MDNR has participated on a joint storm water committee with MoDOT who is a large contributor to land disturbance in the state. Staff also meets regularly with the Homebuilders Association and with municipalities.

The Phase II program came about in 1999 when EPA promulgated regulations setting out how this phase of the program would be conducted. The states had three years to develop an effective program to regulate Phase II. Missouri's general permit for the control of storm water through municipalities will probably be available next week. Permit applications will

need to be received by March 10, 2003. Phase II created a possible exemption for industrial activities that were once regulated under Phase I if they can prove they are no longer exposing any materials or pollutants to storm water. For construction sites, the threshold of the area of disturbance was lowered from five acres to one acre. It also lowered the threshold for municipalities from 100,000 in population to 10,000 in Missouri. Small municipalities in urbanized areas, primarily in the Kansas City and St. Louis areas, are regulated. Letters went out last week informing about 140 municipalities they will need to get their permit applications in by March 10, 2003.

Phase I requires that all entities that are regulated do what they can to control storm water. Ultimately they have to meet water quality standards and are held accountable for any kind of exceedances caused by storm water from their activities. Phase II is set up so that these entities must develop programs to show a reduction in storm water pollutants but not necessarily have to prove that they are meeting water quality standards. They are not required to sample their discharges but are required to make a number of improvements and measure them so they can show continual reductions in storm water pollution.

Minimum control measures the municipalities will be required to include in their program:
Public involvement
Public education
Illicit Discharges
Construction site controls
Post-construction storm water management
Pollution prevention activities

Those persons not yet notified as being regulated under the Phase II program need to submit an application within 180 days of notification. Those regulated in the municipalities will not be required to have all their controls in place in year one. The five-year permit allows phasing implementation of certain control measures as their funding mechanisms, ordinances and other resources become available. At the end of the five-year period, it is anticipated that most municipalities will reach the same level of involvement.

The challenge is that staff is moving from requiring permits on only Kansas City, Independence, and Springfield to over 140 cities. This will mean a large increase in staff involvement and work load which will have to be completed with little or no additional resources. When Phase II began, MDNR received only four additional full time employees to complete the work. Staff is struggling with what EPA wanted done in Phase II. The rules are in place and staff is now trying to determine the most efficient way to administer the program. Staff needs to also continue development of the program to address nonpoint source issues. Building coalitions and partnerships with other organizations and associations that are involved with this issue is also very important.

Commissioner Metcalfe asked what happens with heavily developing, unincorporated counties.

Mr. Schroeder replied Under Phase II only those areas that are actually incorporated are required to obtain a permit under the Phase II program.

Commissioner Metcalfe noted this seems to be an egregious hole. This probably occurs throughout the state but specifically St. Louis, St. Charles and Jefferson Counties have huge areas being developed that are unincorporated.

Mr. Schroeder replied counties are considered a regulated entity under Phase II. The county government is considered a state formed government. There are districts such as the Metropolitan St. Louis Sewer District that were able to avoid Phase I because they have largely combined sewers. They are now covered under Phase II since they are a regulated entity. Organizations such as state formed institutions, universities, and penitentiaries are also covered.

Commissioner Metcalfe stated she is talking about when the county government doesn't have an aggressive program to stop the practices that are destroying all the creeks around the state.

Mr. Schroeder responded an urbanized area is described as an area collectively having 50,000 people or more where the population density is 1,000 people per square mile. If a municipality's boundaries do not cover that entire urbanized area, then the county must cover the remainder.

Responding to Commissioner Metcalfe's statement, Mr. Schroeder replied staff would like to address the problem to the level of its severity. Funding and staffing resources are strained since the four staff for this program have to address permitting, inspection, enforcement, and technical assistance. Staff is also being watched very closely by municipalities to make sure that the program does not exceed the total authority provided by EPA under their mandate.

Scott Totten, Director of the Water Protection and Soil Conservation Division, reported this is a fee-funded activity, solely supported by a $300 per permit fee. The four FTE will barely be able to get the paperwork done and follow-up will not occur.

Jim Hull, Director of Staff for the Clean Water Commission, noted staff understands this is a big problem but there is not enough time or staff to adequately correct the problem that exists. Counties need to help but they have funding problems just as the state does.

Commissioner Perry suggested a consumer driven situation where they are actually adding premiums to developments that were putting buffer zones in and preventing water erosion. Certifying developers as green or promoting other programs that the consumer then drives

and will economically bring some of these people into better compliance might work. Ms. Perry noted one of the most visible violators is MoDOT and she asked why there is not more intensive partnering with MoDOT. It would be a great PR effort on their part to get them out of some of their difficult situations by showing they are protecting the environment.

Chairman Herrmann noted any time a consultant does a design for MoDOT they are required to do an acceptable erosion control plan. The implementation of that plan depends upon MoDOT's employees on the job site and the continual maintenance during the construction period. He asked how effective the committee is in implementing the design plan and maintaining the site in an acceptable condition.

Mr. Schroeder replied the committee will probably address this topic but the committee was just formed.

Chairman Herrmann noted it is a design requirement of the consultant to do an acceptable erosion control plan. For any development in the St. Louis area to be reviewed there has to be an acceptable erosion control plan.

Mr. Schroeder noted MoDOT will be hearing from municipalities during the Phase II effort. Municipalities that have regulations imposing Phase II requirements will be concerned about the erosion controls MoDOT uses for the roads that MoDOT is constructing because it affects the municipality's ability to meet the Phase II standards.

Ron Dent noted that BMPs are frequently installed and maintained by subcontractors. Every time the subcontractor has to return to the site more money has to be paid by MoDOT. It's difficult to maintain these structures through the NOV process. He suggested a presentation such as today's be done for the committee to show them the combined MDC/MDNR efforts. This would show them the impacts and the perception that the public has about MoDOT.

Chairman Herrmann stated the construction specifications should impose the responsibility for continual maintenance on the construction contractor which could be addressed by the committee.

Timber Harvest/Water Quality Program

Brian Brookshire reported MDC supports and encourages the voluntary use of BMPs by private landowners to ensure soil stability and protect water quality during forest harvest operations. MDC's approach is three-fold: education, technical assistance, and incentives to private landowners to ensure the use of BMPs on private land timber sales.

Educational efforts include:
Missouri Watershed Protection Practices booklet which was developed in 1997 in conjunction with MDNR and other private agencies and the university;
Annually provide a grant to the Missouri Forest Products Association;
A commitment to implement demonstration sites on both state and private land;
Forest Management Assistance for Private Landowners booklet which addresses the use of BMPs, the importance of those practices during harvest operations and encourage any landowner to take advantage of those when conducting any type of timber harvest practice;
BMPs video which has gone to every forester in the state, MDNR offices, loaned to anyone who wants to use, using for industry purposes and so forth.

A research project to add to the Missouri Ozark Forest Ecosystem Project has been funded to look at the impacts of timber harvest on water quality. A grant of $56,000 from the Soil and Water Districts Commission helped initiate this project.

One of the major goals of MDC is to provide one-on-one assistance to private landowners. Over the past year, MDC has visited close to 4,000 landowners concerning forestry issues. About 100 stewardship plans have been prepared that cover multi-resources on private property. Some landowners want these and some don't because a commitment is made to MDC that the plan will be implemented.

The State Stewardship Committee is required by federal law in order to receive federal cost share for programs such as the Forest Land Enhancement Program. Money to fund this program comes directly through the State Forester. The committee was developed in order to help the State Forester come up with a plan to spend this money. This committee has a particular interest in implementing BMPs. MDC will try to provide a cost share to Missouri landowners to implement these when they are needed. Development of the state priority plan is part of this process. There is still a MDC cost share docket which supports the implementation of BMPs. Monitoring the use and effectiveness of BMPs on private land needs to be done. This has been done routinely on every timber sale conducted on state land since January 1, 2001. At the end of December, this system will be moved to private land on a voluntary basis. MDC will build a database on how BMPs are being used on private land timber sales and how effective they are.

John Knudsen stated MDNR staff is involved in various partnering efforts to improve or conserve water quality as it relates to forestry. Some of these efforts are involvement on the Missouri Forest Resources Council, the Missouri Forest Stewardship Coordinating Committee, and the Missouri State Stewardship Priority Plan Subcommittee. MDC and MDNR staff agree that not enough research has been done to quantify the water quality impacts of improper timber harvest in the state. Along with the $56,000 obligated by the Soil & Water Districts Commission to help fund the research project to look at the impacts of timber harvest on water quality, the commission is also piloting two forestry practices as a

component of one agricultural nonpoint source special area land treatment (SALT) project. These are watershed-based projects that target agricultural nonpoint sources of water pollution in an identified watershed or hydrologic unit. The project areas are usually between 20,000 and 60,000 acres. Soil and Water Conservation Districts initiate and manage these projects at the local level. Making these pilot forestry practices part of a SALT project ensures that they are applied on a watershed basis and administered locally by a Soil & Water Conservation District. An interagency group made up of staff from USDA Natural Resources Conservation Service (NRCS), Missouri Department of Agriculture, MDC, and MDNR recommended these practices to the Soil & Water Districts Commission and approval was given to utilize these in one SALT grant at the March 2002 commission meeting. If these pilot practices are proven to be successful in improving or conserving water quality on the forested acres in the watershed, the Soil & Water Districts Commission could make these forestry practices available to more SALT projects in the future.

The purpose of the Forest Stewardship Implementation Incentive is to provide a financial incentive on a per acre basis to encourage nonindustrial private forest landowners to develop and implement forest stewardship plans. These plans will include BMPs to improve water quality. MDC along with the NRCS has technical responsibility for determining the need for the forest stewardship plan, plan development, and implementation and certification that any and all of the completed plans meet standards and specifications.

The other SALT pilot practice offered by the Soil & Water Districts Commission is logging roads, skid trails, and log landing restoration demonstrations. The purpose of this practice is to develop demonstration sites to educate landowners in the watershed about the different management possibilities for controlling gully erosion on harvest trails and landing areas as a result of improper construction for logging activities. The components of this practice are critical area seedings, sediment basins, heavy use protection, and forest harvest trails and landings. MDC and NRCS share the technical responsibility for these practices.

The Soil & Water Districts Commission has approved installation of five of these demonstrations in a SALT watershed on a pilot basis and at a cost of $3,000 per site. An evaluation of these sites will be made to determine their effectiveness. If they are found to be effective in demonstrating BMPs, five additional sites could be considered for approval in the watershed.

One Soil & Water Conservation District has included these practices as part of their proposed SALT project. Their project is not focused on the forestry aspect but they want to treat the whole watershed and there are numerous forested acres in this watershed. Preliminary approval has been received for their proposed project. The Soil & Water Districts Commission has encouraged the district to seek any additional funding that may be available

from other sources to enhance these practices. This would give the district the ability to increase implementation of these pilot practices giving them a better chance of showing a positive water quality impact.

Other future funding opportunities might include funding for nonpoint source pollution through section 319. Missouri's Nonpoint Source Management Plan is used as a guide for what 319 funding can be used for. Forestry activities as they relate to water quality are included in the nonpoint source management plan as an area of concern. MDNR would like to use 319 funding to address this concern in the future. Grants are awarded to state and local government educational institutions and not-for-profit organizations with 501 status. Regular grants can be for up to four years and typically range from $150,000 to $800,000. A staff person from MDC serves on the review committee for these grant proposals. Proposals for these regular grants are requested annually.

319 funds are also available for smaller projects or to enhance efforts of existing projects. These are called mini-grants and can be up to $5,000 and for an 18-month maximum project period. They are reviewed quarterly and are not competitive with one another. The focus of these mini-grants is primarily for information/education and demonstration activities, products and events.

MDNR is very interested in using 319 funding in some capacity to address water quality issues as they relate to timber harvest and management. Funding has been discussed with potential project sponsors including the Missouri Forest Products Association. The Nonpoint Source Management Plan is intended to be a tool for addressing nonpoint source water pollution. MDNR hopes MDC will again be involved in updating this plan. Mr. Knudsen noted he has worked with MDC staff on various issues and they have been very cooperative and professional and he looks forward to continuing that relationship.

Commissioner Perry asked if there is any involvement of the stream teams in some of the planning committees so they can be aware of how the BMPs have improved the water quality.

Mr. Brookshire responded he is not aware of any involvement at this time but something like that could be implemented. He noted the water quality testing that is planned is pretty technical.

Commissioner Perry noted if the purpose of that monitoring is to show improvement in water quality it would be good to involve people who are involved in the streams in those areas who have an interest.

A speaker from the audience noted when many of the proposals come in they have partners and many of them include stream teams. About two-thirds of the SALT projects have stream teams or volunteer water quality monitors listed as partners.

Ms. Clifford noted staff attempts to incorporate stream teams into 319 grants also.

Kenny Struemph noted if SALT projects do not include a stream team they become aware of stream teams in the area or initiate a stream team in the area.

Commissioner Perry stated if appropriation is received from the Farm Bill there will be some tremendous opportunities to establish partnerships and work to clean up.

Commissioner Minton asked how far along the SALT project addressing the timber harvest issue is.

Mr. Knudsen responded preliminary approval has been received which means they have funding to do more planning to make sure the project will be a success before they get final funding.

Commissioner Minton noted he can appreciate the fact that they don't want to waste the taxpayers' money on a project that does not deem to be successful but it will be another few months before it gets funded and it will be years before it's proven successful. In that time the Ozarks could be cleared off. Commissioner Minton stated if we're waiting for one project to prove what practices will be implemented and what will be successful BMPs, a conclusion will never be reached. He continued that too little too late isn't going to do anything. Commissioner Minton asked how many acres of timber are harvested annually in the state.

Mr. Brookshire responded he did not have good numbers on that.

Commissioner Minton asked, out of the acres that are harvested, what percentage would utilize BMPs, no BMPs done with the private landowner, and how many acres have actually been clear-cut.

Mr. Brookshire responded MDC feels they impact 10-13% of the timber sales that are conducted in the state on an annual basis. There is no good way to determine how many timber sales, and how large they are, that occur on an annual basis.

Commissioner Minton asked how a typical timber harvest that occurs on private lands in the state would be rated from A-F.

Mr. Brookshire replied of the private land timber sales that does not have professional involvement, the major concern is the silvicultural treatment of those lands. One of the major items that are impacting forest lands in the state is improper silvicultural techniques leading to highgrading, or taking the best and leaving the rest. That will have a long-term negative impact on the overall forest resource. A lot of this is happening without detrimental impacts to the soil and water quality because harvesting occurs during dry or frozen times. BMPs are not necessarily going to benefit soil stability and so forth but bad management practices are happening. MDC finds out about a bad timber sale that has created erosion problems through the public, through working with MDNR and then MDC tries to address those. Not much is heard about really bad timber sales but they do hear a lot about improper harvest practices impacting a potential stand.

Commissioner Minton asked about sources of funding and what level of funding is occurring for cost share with private landowners to implement BMPs and the stewardship program. This issue has been discussed for almost four years and it's time to move forward.

Mr. Knudsen responded he is not aware of a forestry focused 319 grant in the state. He continued that staff is actively pursuing some sponsors to do a project.

Mr. Brookshire stated the forest land enhancement program will be funded at about $300,000 annually. A percentage of that money will be used to work with BMPs. If opportunities arise to spend that money with BMPs on the ground, it will be done. MDC made available to the private landowner several years ago, through the cost share docket money for forest harvests and trails, but Mr. Brookshire did not have an amount.

Chairman Wood noted the Conservation Commission has a meeting to attend at 3:30 and he asked that this meeting be adjourned so the commissioners could visit a short time before they go into that meeting.

Meeting was adjourned at approximately 3:30 p.m.

Respectfully submitted,

Jim Hull
Director of Staff